



**NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF HEALTH FACILITIES**

Dialysis Dialogue

Fall 2003

Dialyzer Reuse — Cleaning the Header

Information presented by Lee Fischbach, Minntech Corporation, at the CMS Accelerated Basic ESRD Training, June 2003, Minneapolis, Minn.

A majority of dialysis facilities have automated their reuse process. The used dialyzer is placed, intact, on a machine that cleans, tests and disinfects the dialyzer without a need to disassemble the unit.

From time to time, however, a large accumulation of clots on the dialyzer's potting compound will inspire a reuse technician to remove a header cap and manually remove the debris.

The preferred method for removing clots from the potting compound is to use a stream of AAMI quality water to dislodge them. (It is acceptable to use a new 4 X 4 to dislodge the clots that were not removed by the water.) There are problems with this manual method of cleaning the dialyzer.

AAMI quality water is not sterile water. (AAMI guidelines allow the water to contain up to 200 colony-forming units of bacteria.) When this water is sprayed over the dialyzer, bacteria are deposited on the potting compound, on the header cap and on the "O" ring (The "O" ring creates a seal between the header cap and the dialyzer.)

The primary concern for bacterial contamination is with the "O" ring. When the header cap is removed from the dialyzer, the seal is broken between the header cap and the "O" ring. This broken seal allows water, contaminated with bacteria, to get between the

"O" ring and the header cap. When the header is replaced on the dialyzer, the seal between the "O" ring and the header cap is re-established.

This creates a warm, moist area, perfect for bacterial growth. Further, this bacterial paradise is sealed off from the rest of the dialyzer, keeping it safe from the sanitizer used to disinfect the dialyzer unit.

If, after the disinfection of the dialyzer, the header cap should become loose, the seal between the "O" ring and the header cap would break. This would allow these isolated bacteria to flow out into the main dialyzer compartments.

There is a simple way to prevent this potential contamination. When the header cap is removed from the dialyzer, the "O" ring should also be removed from the dialyzer cap. After cleaning with AAMI quality water, the header cap, the "O" ring and the end of the dialyzer should all be immersed in a germicide solution for a few seconds.

The unit should be reassembled while it is still wet with germicide. This will inactivate any bacteria deposited by the water, eliminating the potential for bacterial contamination.

Welcome to this edition of *Dialysis Dialogue*, a newsletter published by the North Dakota Department of Health, Division of Health Facilities. *Dialysis Dialogue* is designed to help dialysis departments stay up-to-date on various issues. Please share with your dialysis staff.

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Should Patients Eat and Drink During Treatment?

Information provided during question and answer sessions at the CMS Accelerated Basic ESRD Training, June 2003, Minneapolis, Minn.

Policies on eating and drinking during treatment vary considerably. Some facilities allow patients to have toast and coffee, while other facilities encourage their patients to bring a sack lunch. Still other facilities do not allow any drinking or eating during treatment.

There are some compelling arguments in favor of restricting food and fluid intakes while receiving dialysis treatments. When an individual ingests food or fluids, blood rushes to the gastro-intestinal track to assist in the digestive process. This shunting of blood could result in a decrease in systemic blood pressure, which could have an impact on the effectiveness of the dialysis treatment.

Patients who eat or drink during treatment may experience more nausea or vomiting which may lead to aspiration.

Finally, dialysis is done to remove fluids. Consumption of large amounts of fluids during dialysis could negate the benefits of the treatment. Patients should be counseled to avoid drinking excessive fluids, even during treatment.

On the other hand, patients spend several hours a day confined to a dialysis chair. Often these hours extend across the normal lunch hours. It is certainly preferable to have a patient eat a sandwich during treatment than to have them end treatment early due to hunger.

If your facility decides to establish rules limiting food and beverages during treatment, you have a responsibility to respect your patients by informing them of the reasons for the restrictions.

Whatever decision your facility chooses to make regarding food and beverages on the treatment floor should be specifically detailed in your facility's policies and procedures. While on site, surveyors will expect to see that policies have been developed, and that those policies are being followed.

Dialysis Survival Rates Improved in Patients Taking a New Form of Vitamin D

According to a recent study conducted by Dr. Ravi Thadhani of the Massachusetts General Hospital Renal Unit, dialysis patients who took Paricalcitol (a Vitamin D analog) had a 16 percent greater chance of survival than patients receiving Calcitriol. The three-year study was published in the July 31, 2003, edition of the New England Journal of Medicine.

Paricalcitol has been approved by the U.S. Food and Drug Administration for the treatment of hyperparathyroidism associated with kidney failure. Ingestion of Paricalcitol has been correlated with stabilization of calcium and phosphorus levels, particularly in patients who tend to be resistive to Calcitriol.

Further research will be necessary to determine the mechanism behind the improved survival rates. Researchers are hopeful that future knowledge may prove useful in treating patients before they need to undergo dialysis treatments.¹

¹Nutraingredients.com, Newer Vitamin D Raises Chances of Dialysis Survival. July 31, 2003.

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